

SEQUENCE LISTING

<110> Avalon Pharmaceuticals, Inc.

<120> Amplified Cancer Target Genes Useful in Diagnosis and Therapeutic Screening

<130> 689290-182

<150> 60/434,918

<151> 2002-12-20

<150> 60/463,577

<151> 2003-04-17

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<170> PatentIn version 3.0

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acaagaacgt	caacagcaac	ctcatcac	ggaaccgggt	ggtgctgctc	cacggcctc	540
ctggcactgg	aaaaacatcc	ctgtgtaaag	cgttagccca	gaaattgaca	attagactt	600
caagcaggta	ccgatata	caattaattt	aaataaaacag	ccacagcctc	tttcttaagt	660
ggtttcgg	aagtggcaag	ctggtaacca	agatgtttca	gaagattcag	gatttgattt	720
atgataaaaga	cgcctgggt	tgcgtctga	ttgatgaggt	ggagagtctc	acagccgccc	780
gaaatgcctg	caggcgccc	accgagccat	cagatgccat	ccgcgtggc	aatgctgtct	840
tgacccaaat	tgatcagatt	aaaaggcatt	ccaatgttgc	gattctgacc	acttctaaca	900
tcaccgagaa	gatcgacgtg	gccttcgtgg	acagggctga	catcaagcag	tacattgggc	960
caccctctgc	agcagccatc	ttcaaaatct	acctctcttg	tttggaaagaa	ctgatgaagt	1020
gtcagatcat	ataccctcgc	cagcagctgc	tgaccctccg	agagctagag	atgattggct	1080
tcatttggaaa	caacgtgtca	aaattgagcc	ttctttgaa	tgacatttca	aggaagagcg	1140
agggcctcag	cggccgggc	ctgagaaaac	tcccctttt	ggctcatgcg	ctgtatgtcc	1200
aggcccccac	cgtcaccata	gaggggttcc	tccaggccct	gtctctggca	gtggacaagc	1260
agtttgaaga	gagaaagaag	cttgcagctt	acatctgatc	ctgggcttcc	ccatctggtg	1320

cttttccat ggagaacaca caaccgaaaa gtgcagactc tgagtgttcc agggaaacac	1380
atgctggaca tcccttgtaa cccggatgg gcgcctgc attgctggga tgtttctgcc	1440
cacggtttg tttgtgcaat aacgttatca catttctaatt gaggattcac attaatataa	1500
tataaaataa atagtcagt tactggtctc tttctccgaa tgttatgttt tgcttttatac	1560
tcacagtaaa ataaatataa ttaatggttt gcatgtgaaa ttcaactttt aaagaacatg	1620
ttaccttacc tttgtttta gaagtttca agtattaaaa tatttttag aa..	1672

<210> 7
<211> 432
<212> PRT
<213> Artificial

<220>
<223> Putative Protein Derived from cDNA.

<400> 7	
Met Asp Glu Ala Val Gly Asp Leu Lys Gln Ala Leu Pro Cys. Val Ala	
1 5 10 15	
Glu Ser Pro Thr Val His Val Glu Val His. Gln Arg Gly Ser Ser Thr	
20 25 30	
Ala Lys Lys Glu Asp Ile Asn Leu Ser Val Arg Lys Leu Leu Asn Arg	
35 40 45	
His Asn Ile Val Phe Gly Asp Tyr Thr Trp Thr Glu Phe Asp Glu Pro	
50 55 60	
Phe Leu Thr Arg Asn Val Gln Ser Val Ser Ile Ile. Asp Thr Glu Leu	
65 70 75 80	
Lys Val Lys Asp Ser Gln Pro Ile Asp Leu Ser Ala Cys Thr Val Ala	
85 90 95	
Leu His Ile Phe Gln Leu Asn Glu Asp Gly Pro Ser Ser Glu Asn Leu	
100 105 110	
Glu Glu Glu Thr Glu Asn Ile Ile Ala Ala Asn His Trp Val Leu Pro	
115 120 125	
Ala Ala Glu Phe His Gly Leu Trp Asp Ser Leu Val Tyr Asp Val Glu	
130 135 140	
Val Lys Ser His Leu Leu Asp Tyr Val Met Thr Thr Leu Leu Phe Ser	
145 150 155 160	
Asp Lys Asn Val Asn Ser Asn Leu Ile Thr Trp Asn Arg Val Val Leu	
165 170 175	
Leu His Gly Pro Pro Gly Thr Gly Lys Thr Ser Leu Cys Lys Ala Leu	
180 185 190	
Ala Gln Lys Leu Thr Ile Arg Leu Ser Ser Arg Tyr Arg Tyr Gly Gln	
195 200 205	
Leu Ile Glu Ile Asn Ser His Ser Leu Phe Ser Lys Trp Phe Ser Glu	
210 215 220	

Ser Gly Lys Leu Val Thr Lys Met Phe Gln Lys Ile Gln Asp Leu Ile
 225 230 235 240

Asp Asp Lys Asp Ala Leu Val Phe Val Leu Ile Asp Glu Val Glu Ser
 245 250 255

Leu Thr Ala Ala Arg Asn Ala Cys Arg Ala Gly Thr Glu Pro Ser Asp
 260 265 270

Ala Ile Arg Val Val Asn Ala Val Leu Thr Gln Ile Asp Gln Ile Lys
 275 280 285

Arg His Ser Asn Val Val Ile Leu Thr Thr Ser Asn Ile Thr Glu Lys
 290 295 300

Ile Asp Val Ala Phe Val Asp Arg Ala Asp Ile Lys Gln Tyr Ile Gly
 305 310 315 320

Pro Pro Ser Ala Ala Ile Phe Lys Ile Tyr Leu Ser Cys Leu Glu
 325 330 335

Glu Leu Met Lys Cys Gln Ile Ile Tyr Pro Arg Gln Gln Leu Leu Thr
 340 345 350

Leu Arg Glu Leu Glu Met Ile Gly Phe Ile Glu Asn Asn Val Ser Lys
 355 360 365

Leu Ser Leu Leu Leu Asn Asp Ile Ser Arg Lys Ser Glu Gly Leu Ser
 370 375 380

Gly Arg Val Leu Arg Lys Leu Pro Phe Leu Ala His Ala Leu Tyr Val
 385 390 395 400

Gln Ala Pro Thr Val Thr Ile Glu Gly Phe Leu Gln Ala Leu Ser Leu
 405 410 415

Ala Val Asp Lys Gln Phe Glu Glu Arg Lys Lys Leu Ala Ala Tyr Ile
 420 425 430

<210> 8
 <211> 552
 <212> PRT
 <213> Artificial

<220>
 <223> Putative Protein Derived from cDNA.

<400> 8
 Ser Cys Ala Ser Cys Pro Trp Arg Arg Arg Arg Ala Arg Gly Gly
 1 5 10 15

Gly Trp Glu Gln Leu Ala Pro Gly Arg Thr Leu Ala Ala Thr Ala Pro
 20 25 30

Trp Pro Trp Leu Ala Ala Arg Ala Arg Cys Ala Glu Val Ala Glu Leu
 35 40 45

Ala Gly Pro Arg Arg Lys Arg Gly Glu Ala Gly Pro Arg Gln Glu Val
 50 55 60

Ala Leu Pro Gly Pro Ser Ala Ser Gly Ser Gly Gly Gly Ala Pro Arg
 65 70 75 80

Ala Ala Asp Ser Lys Leu Gly Arg Gly Pro Arg Ala Glu Ala Ala Ala
 85 90 95

Val Ala Ala Thr Leu Gly Val Arg Trp Arg Arg Pro Arg Pro Gly Trp
 100 105 110

Val Pro Thr Ala Leu Gly Gly Ala Met Asp Glu Ala Val Gly Asp Leu
 115 120 125

Lys Gln Ala Leu Pro Cys Val Ala Glu Ser Pro Thr Val His Val Glu
 130 135 140

Val His Gln Arg Gly Ser Ser Thr Ala Lys Lys Glu Asp Ile Asn Leu
 145 150 155 160

Ser Val Arg Lys Leu Leu Asn Arg His Asn Ile Val Phe Gly Asp Tyr
 165 170 175

Thr Trp Thr Glu Phe Asp Glu Pro Phe Leu Thr Arg Asn Val Gln Ser
 180 185 190

Val Ser Ile Ile Asp Thr Glu Leu Lys Val Lys Asp Ser Gln Pro Ile
 195 200 205

Asp Leu Ser Ala Cys Thr Val Ala Leu His Ile Phe Gln Leu Asn Glu
 210 215 220

Asp Gly Pro Ser Ser Glu Asn Leu Glu Glu Glu Thr Glu Asn Ile Ile
 225 230 235 240

Ala Ala Asn His Trp Val Leu Pro Ala Ala Glu Phe His Gly Leu Trp
 245 250 255

Asp Ser Leu Val Tyr Asp Val Glu Val Lys Ser His Leu Leu Asp Tyr
 260 265 270

Val Met Thr Thr Leu Leu Phe Ser Asp Lys Asn Val Asn Ser Asn Leu
 275 280 285

Ile Thr Trp Asn Arg Val Val Leu Leu His Gly Pro Pro Gly Thr Gly
 290 295 300

Lys Thr Ser Leu Cys Lys Ala Leu Ala Gln Lys Leu Thr Ile Arg Leu
 305 310 315 320

Ser Ser Arg Tyr Arg Tyr Gly Gln Leu Ile Glu Ile Asn Ser His Ser
 325 330 335

Leu Phe Ser Lys Trp Phe Ser Glu Ser Gly Lys Leu Val Thr Lys Met
 340 345 350

Phe Gln Lys Ile Gln Asp Leu Ile Asp Asp Lys Asp Ala Leu Val Phe
 355 360 365

Val Leu Ile Asp Glu Val Glu Ser Leu Thr Ala Ala Arg Asn Ala Cys

370	375	380
Arg Ala Gly Thr Glu Pro Ser Asp Ala Ile Arg Val Val Asn Ala Val		
385	390	395
Leu Thr Gln Ile Asp Gln Ile Lys Arg His Ser Asn Val Val Ile Leu		
405	410	415
Thr Thr Ser Asn Ile Thr Glu Lys Ile Asp Val Ala Phe Val Asp Arg		
420	425	430
Ala Asp Ile Lys Gln Tyr Ile Gly Pro Pro Ser Ala Ala Ala Ile Phe		
435	440	445
Lys Ile Tyr Leu Ser Cys Leu Glu Glu Leu Met Lys Cys Gln Ile Ile		
450	455	460
Tyr Pro Arg Gln Gln Leu Leu Thr Leu Arg Glu Leu Glu Met Ile Gly		
465	470	475
Phe Ile Glu Asn Asn Val Ser Lys Leu Ser Leu Leu Leu Asn Asp Ile		
485	490	495
Ser Arg Lys Ser Glu Gly Leu Ser Gly Arg Val Leu Arg Lys Leu Pro		
500	505	510
Phe Leu Ala His Ala Leu Tyr Val Gln Ala Pro Thr Val Thr Ile Glu		
515	520	525
Gly Phe Leu Gln Ala Leu Ser Leu Ala Val Asp Lys Gln Phe Glu Glu		
530	535	540
Arg Lys Lys Leu Ala Ala Tyr Ile		
545	550	

<210> 9
<211> 295
<212> PRT
<213> Artificial

<220>
<223> Putative Protein Derived from cDNA.

<400> 9		
Ser Cys Ala Ser Cys Pro Trp Arg Arg Arg Arg Ala Arg Gly Gly		
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		15
Gly Trp Glu Gln Leu Ala Pro Gly Arg Thr Leu Ala Ala Thr Ala Pro		
20	25	30
Trp Pro Trp Leu Ala Ala Arg Ala Arg Cys Ala Glu Val Ala Glu Leu		
35	40	45
Ala Gly Pro Arg Arg Lys Arg Gly Glu Ala Gly Pro Arg Gln Glu Val		
50	55	60
Ala Leu Pro Gly Pro Ser Ala Ser Gly Ser Gly Gly Ala Pro Arg		
65	70	75
		80

Ala Ala Asp Ser Lys Leu Gly Arg Gly Pro Arg Ala Glu Ala Ala Ala
 85 90 95

Val Ala Ala Thr Leu Gly Val Arg Trp Arg Arg Pro Arg Pro Gly Trp
 100 105 110

Val Pro Thr Ala Leu Gly Gly Ala Met Asp Glu Ala Val Gly Asp Leu
 115 120 125

Lys Gln Ala Leu Pro Cys Val Ala Glu Ser Pro Thr Val His Val Glu
 130 135 140

Val His Gln Arg Gly Ser Ser Thr Ala Lys Lys Glu Asp Ile Asn Leu
 145 150 155 160

Ser Val Arg Lys Leu Leu Asn Arg His Asn Ile Val Phe Gly Asp Tyr
 165 170 175

Thr Trp Thr Glu Phe Asp Glu Pro Phe Leu Thr Arg Asn Val Gln Ser
 180 185 190

Val Ser Ile Ile Asp Thr Glu Leu Lys Val Lys Asp Ser Gln Pro Ile
 195 200 205

Asp Leu Ser Ala Cys Thr Val Ala Leu His Ile Phe Gln Leu Asn Glu
 210 215 220

Asp Gly Pro Ser Ser Glu Asn Leu Glu Glu Thr Glu Asn Ile Ile
 225 230 235 240

Ala Ala Asn His Trp Val Leu Pro Ala Ala Glu Phe His Gly Leu Trp
 245 250 255

Asp Ser Leu Val Tyr Asp Val Glu Val Lys Ser His Leu Leu Asp Tyr
 260 265 270

Val Met Thr Thr Leu Leu Phe Ser Asp Lys Asn Val Asn Ser Asn Leu
 275 280 285

Ile Thr Pro Pro Pro Ser Pro
 290 295

<210> 10

<211> 279

<212> PRT

<213> Artificial

<220>

<223> Putative Protein Derived from cDNA.

<400> 10

Met Thr Thr Leu Leu Phe Ser Asp Lys Asn Val Asn Ser Asn Leu Ile
 1 5 10 15

Thr Trp Asn Arg Val Val Leu Leu His Gly Pro Pro Gly Thr Gly Lys
 20 25 30

Thr Ser Leu Cys Lys Ala Leu Ala Gln Lys Leu Thr Ile Arg Leu Ser
 35 40 45

 Ser Arg Tyr Arg Tyr Gly Gln Leu Ile Glu Ile Asn Ser His Ser Leu
 50 55 60

 Phe Ser Lys Trp Phe Ser Glu Ser Gly Lys Leu Val Thr Lys Met Phe
 65 70 75 80

 Gln Lys Ile Gln Asp Leu Ile Asp Asp Lys Asp Ala Leu Val Phe Val
 85 90 95

 Leu Ile Asp Glu Val Glu Ser Leu Thr Ala Ala Arg Asn Ala Cys Arg
 100 105 110

 Ala Gly Thr Glu Pro Ser Asp Ala Ile Arg Val Val Asn Ala Val Leu
 115 120 125

 Thr Gln Ile Asp Gln Ile Lys Arg His Ser Asn Val Val Ile Leu Thr
 130 135 140

 Thr Ser Asn Ile Thr Glu Lys Ile Asp Val Ala Phe Val Asp Arg Ala
 145 150 155 160

 Asp Ile Lys Gln Tyr Ile Gly Pro Pro Ser Ala Ala Ala Ile Phe Lys
 165 170 175

 Ile Tyr Leu Ser Cys Leu Glu Leu Met Lys Cys Gln Ile Ile Tyr
 180 185 190

 Pro Arg Gln Gln Leu Leu Thr Leu Arg Glu Leu Glu Met Ile Gly Phe
 195 200 205

 Ile Glu Asn Asn Val Ser Lys Leu Ser Leu Leu Leu Asn Asp Ile Ser
 210 215 220

 Arg Lys Ser Glu Gly Leu Ser Gly Arg Val Leu Arg Lys Leu Pro Phe
 225 230 235 240

 Leu Ala His Ala Leu Tyr Val Gln Ala Pro Thr Val Thr Ile Glu Gly
 245 250 255

 Phe Leu Gln Ala Leu Ser Leu Ala Val Asp Lys Gln Phe Glu Glu Arg
 260 265 270

 Lys Lys Leu Ala Ala Tyr Ile
 275

<210> 11
 <211> 431
 <212> PRT
 <213> Artificial

<220>
 <223> Putative Protein Derived from cDNA.

<400> 11

Val Leu Leu Pro Gly Val Gly Gly Thr Gln Arg Arg Gly Gln Thr Phe

1	5	10	15
Thr Asp Pro Pro Tyr Val His Gly Gly Trp Ile Glu Val Ser Thr Ala			
20	25	30	
Lys Lys Glu Asp Ile Asn Leu Ser Val Arg Lys Leu Leu Asn Arg His			
35	40	45	
Asn Ile Val Phe Gly Asp Tyr Thr Trp Thr Glu Phe Asp Glu Pro Phe			
50	55	60	
Leu Thr Arg Asn Val Gln Ser Val Ser Ile Ile Asp Thr Glu Leu Lys			
65	70	75	80
Val Lys Asp Ser Gln Pro Ile Asp Leu Ser Ala Cys Thr Val Ala Leu			
85	90	95	
His Ile Phe Gln Leu Asn Glu Asp Gly Pro Ser Ser Glu Asn Leu Glu			
100	105	110	
Glu Glu Thr Glu Asn Ile Ile Ala Ala Asn His Trp Val Leu Pro Ala			
115	120	125	
Ala Glu Phe His Gly Leu Trp Asp Ser Leu Val Tyr Asp Val Glu Val			
130	135	140	
Lys Ser His Leu Leu Asp Tyr Val Met Thr Thr Leu Leu Phe Ser Asp			
145	150	155	160
Lys Asn Val Asn Ser Asn Leu Ile Thr Trp Asn Arg Val Val Leu Leu			
165	170	175	
His Gly Pro Pro Gly Thr Gly Lys Thr Ser Leu Cys Lys Ala Leu Ala			
180	185	190	
Gln Lys Leu Thr Ile Arg Leu Ser Ser Arg Tyr Arg Tyr Gly Gln Leu			
195	200	205	
Ile Glu Ile Asn Ser His Ser Leu Phe Ser Lys Trp Phe Ser Glu Ser			
210	215	220	
Gly Lys Leu Val Thr Lys Met Phe Gln Lys Ile Gln Asp Leu Ile Asp			
225	230	235	240
Asp Lys Asp Ala Leu Val Phe Val Leu Ile Asp Glu Val Glu Ser Leu			
245	250	255	
Thr Ala Ala Arg Asn Ala Cys Arg Ala Gly Thr Glu Pro Ser Asp Ala			
260	265	270	
Ile Arg Val Val Asn Ala Val Leu Thr Gln Ile Asp Gln Ile Lys Arg			
275	280	285	
His Ser Asn Val Val Ile Leu Thr Thr Ser Asn Ile Thr Glu Lys Ile			
290	295	300	
Asp Val Ala Phe Val Asp Arg Ala Asp Ile Lys Gln Tyr Ile Gly Pro			
305	310	315	320

Pro Ser Ala Ala Ala Ile Phe Lys Ile Tyr Leu Ser Cys Leu Glu Glu
325 330 335

Leu Met Lys Cys Gln Ile Ile Tyr Pro Arg Gln Gln Leu Leu Thr Leu
340 345 350

Arg Glu Leu Glu Met Ile Gly Phe Ile Glu Asn Asn Val Ser Lys Leu
355 360 365

Ser Leu Leu Leu Asn Asp Ile Ser Arg Lys Ser Glu Gly Leu Ser Gly
370 375 380

Arg Val Leu Arg Lys Leu Pro Phe Leu Ala His Ala Leu Tyr Val Gln
385 390 395 400

Ala Pro Thr Val Thr Ile Glu Gly Phe Leu Gln Ala Leu Ser Leu Ala
405 410 415

Val Asp Lys Gln Phe Glu Glu Arg Lys Lys Leu Ala Ala Tyr Ile
420 425 430